ITC-100

8 Channel Intercom / Talkback System

User's Guide

http:// www.datavideo-tek.com

Rev: 300506

Warnings and Precautions

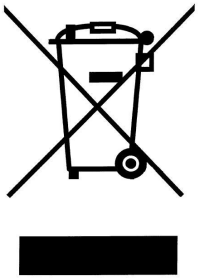
1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.
9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord's rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:
    a. When the power cord is damaged or frayed;
    b. When liquid has spilled into the unit;
    c. When the product has been exposed to rain or water;
    d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
    e. When the product has been dropped or the cabinet has been damaged;
    f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Datavideo warrants that the equipment it manufactures shall be free from defects in material and workmanship for a period of 12 months from the date of product purchased. If equipment fails due to such defects, Datavideo will, at its option, repair or provide a replacement for the defective part or product.

Equipment that fails after the warranty period, has been operated or installed in a manner other than that specified by Datavideo, or has been subjected to abuse or modification, will be repaired for time and material charges at the Buyer's expense. This warranty does not affect your statutory rights within the Country of purchase.

For EU Customers only - WEEE Marking.



This symbol on the product indicates that it will not be treated as household waste. It must be handed over to the applicable take-back scheme for the recycling of electrical and electronic equipment. For more detailed information about the recycling of this product, please contact your local Datavideo office.

Introduction

The ITC-100 is a 19" Rack Mount 8 Way Intercom / Talkback System. It incorporates tally indicators for each channel and individual channel call buttons as well as a call all channels button.

It is ideal in a live environment and enables easy bi-directional communication between all members of the crew. It is a perfect accessory for the Datavideo SE-800 and SE-500 vision mixers.

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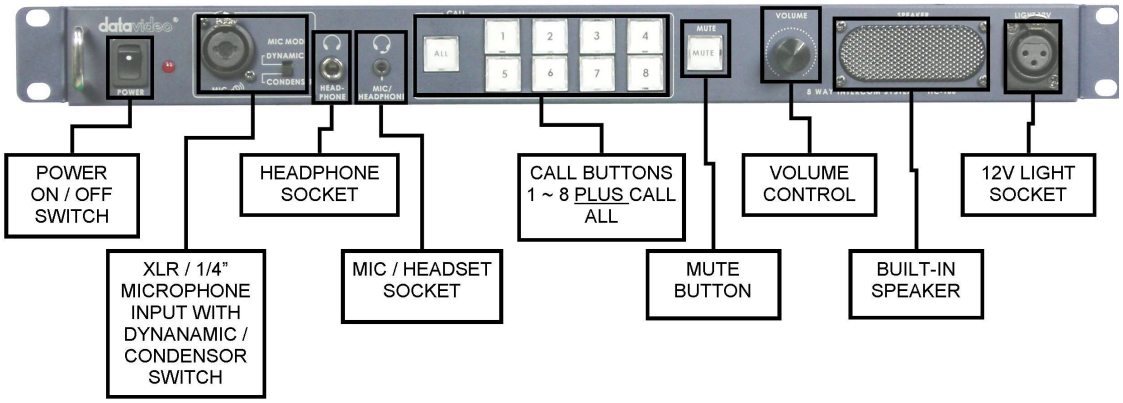
What's in the Package

1.	ITC-100 main unit	x	1
2.	ITC-100SL Slave Unit	x	4
3.	ITC-100SL Carrying Case	x	4
4.	20m XLR to XLR Intercom Cable	x	4
5.	MC-1 Headset / Microphone	x	4
6.	MC-2 XLR Gooseneck Mic	x	1
7.	LP-1 XLR Gooseneck Light	x	1
8.	12V 2.5A Power Supply Unit	x	1
9.	AC Power cord.	x	1
10.	User's Guide	x	1

Front Panel:


POWER ON / OFF SWITCH
XLR / 1/4" MICROPHONE INPUT WITH DYNANAMIC / CONDENSOR SWITCH
HEADPHONE SOCKET
MIC / HEADSET SOCKET
CALL BUTTONS 1 ~ 8 PLUS CALL ALL
MUTE BUTTON
VOLUME CONTROL
BUILT-IN SPEAKER
12V LIGHT SOCKET

On / Off Switch

Powers the ITC-100 On / Off. Red LED indicates that unit is switched on.

XLR Microphone Socket

Combined XLR / ¼" (6.3mm) Jack Microphone Input for either a Condenser or Dynamic Gooseneck Microphone. XLR supports Condenser Microphones ¼" (6.3mm) Jack supports Dynamic.

Headphone Socket

¼ " / 6.3mm Stereo Headphone Socket for conventional headphones. Plugging in headphones will disable the built-in speaker

Microphone / Headset Socket

3.5mm Stereo Socket for combined Microphone Headset.
Plugging in a Microphone / Headset will disable the built-in speaker and the XLR Microphone Input.

ALL Button

Opens communication with all channels. All channels will hear communication from the operator, or from any other channel using the TALK button.

Channel Buttons 1~8

Opens communication with individual channels. More than 1 channel can be active at any given time, active channels are illuminated red.

All active channels will hear any communication from the operator or from any other active channel.

The buttons will also indicate if any channel is paging, the paging channel will flash in orange until the page is answered.

MUTE Button

Mutes all communication from the base station or any channel.

N.B. If any channel uses the CALL button the paging tone will still sound even when the MUTE button is active.

Volume Control

Controls the Volume of the built-in speaker or outputs to the headphones or mic/headset according to what is connected

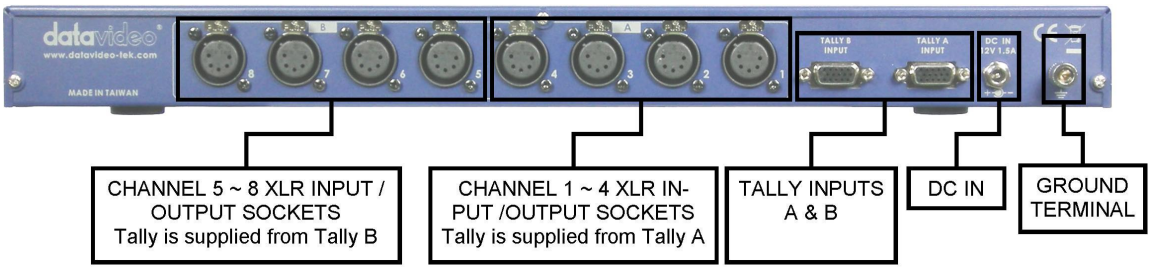
Built-In Speaker

Sounds audible alert when a channel is paging and provides audio during talkback conversations. Speaker is mute when headphones or mic / headset are connected to the ITC-100

12V Light Socket

12V Powered light socket for gooseneck light (supplied).

Rear Panel:


CHANNEL 5 ~ 8 XLR INPUT / OUTPUT SOCKETS
Tally is supplied from Tally B
CHANNEL 1 ~ 4 XLR IN-PUT /OUTPUT SOCKETS
Tally is supplied from Tally A
TALLY INPUTS A & B
DC IN
GROUND TERMINAL

Channel Input / Output XLR Sockets

Each of the 8 channels has an XLR connector that carries bi-directional signals between the ITC-100 and ITC-100SL. All connections are contained within the one cable. Channels 1 ~ 4 are supplied tally light information from tally A; channels 5 ~ 8 are supplied tally light information from tally B.

Tally Inputs A & B

Tally Inputs A & B are configured for direct connection to the Datavideo RMC-140, RMC-90 or SE-500. They supply bi-color tally information to the ITC-100SL; RED indicates Live and AMBER indicates Cued. Tally A will feed information to channels 1 ~ 4 and Tally B will feed information to channels 5 ~ 8

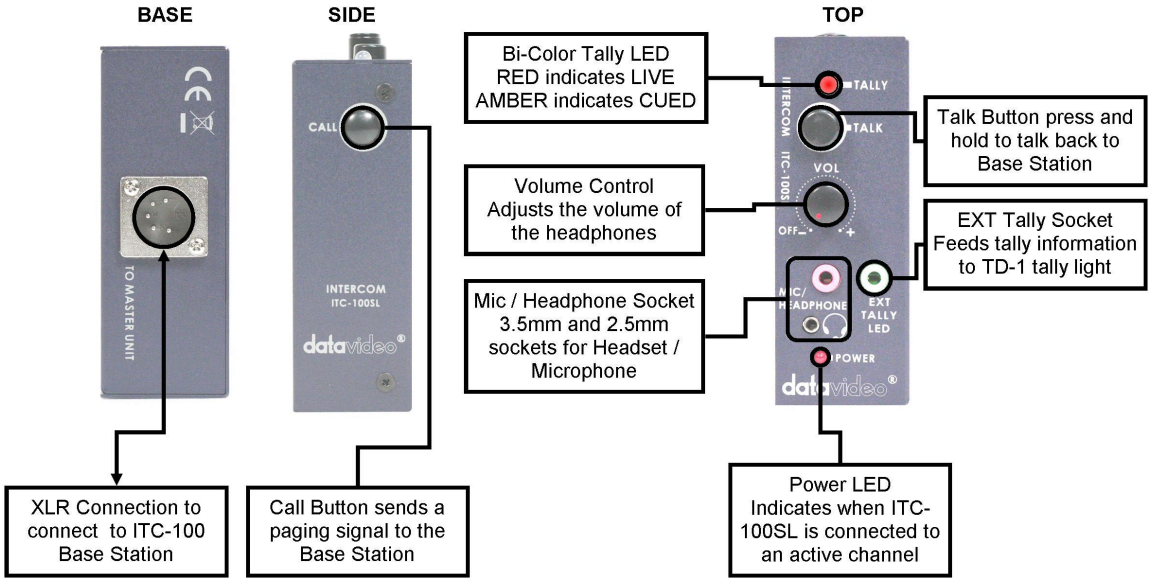
DC In 12V 1.5A

Connect the 12V 1.5A power supply. The power supply plug has a screw in locking collar to secure the connection.

Ground Terminal

When connecting this unit to any other component, make sure that it is properly grounded by connecting this terminal to an appropriate point. When connecting, use the socket and be sure to use wire with a cross-sectional area of at least 1.0 mm2.

ITC-100SL Slave Unit :



XLR Connection

Connects the ITC-100SL to the ITC-100 Base Station. Power, tally and bi-directional audio are all carried through the same cable.

Call Button

Sends a paging message to the ITC-100 Base Station. The channel button will flash orange and there will be an audible tone, each time the button is pressed.

Bi-Color Tally LED

Will illuminate RED when the channel is LIVE and AMBER when the channel is CUED

Talk Button

Opens up talk back communication with the ITC-100 base station, and any other active channels.

Volume Control

Adjusts the volume of the headphones.

Mic / Headphone Socket

The ITC-100SL has both a 3.5mm and 2.5mm Mic / Headset socket. A standard 3.5mm Mic / Headset can be used, or a Motorola type 2.5mm Mic / headset could be used if preferred.

External Tally LED Socket

An external tally display (TD-1) can be connected to the ITC-100SL. This enables the tally light to be positioned in a more convenient place, such as on top of the camera. When the channel is LIVE the LED will be RED, and when the channel is CUED the LED will be AMBER.

N.B. The Tally LED on the ITC-100SL will continue to operate as normal when a TD-1 has been added.

Power LED

The Power LED indicates when the channel is active. If the operator has opened the channel by pressing the channel button 1 ~ 8, or by pressing ALL then the LED will light up.

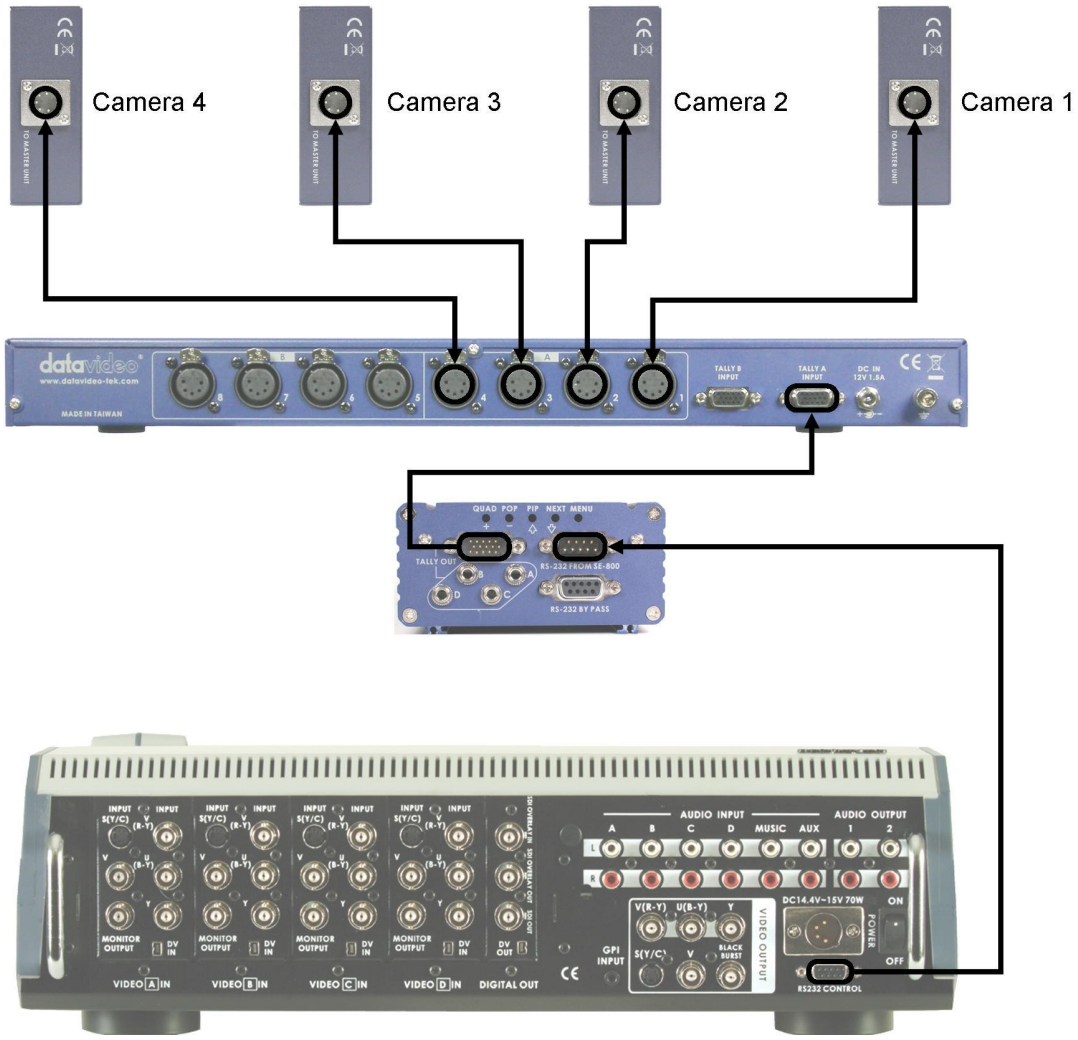
N.B. The tally indicator lights will continue to work even when the Power LED is not on, and the channel is not active.

Using the ITC-100 with the SE-800 / RMC-140:

The ITC-100 is an ideal accessory for the Datavideo SE-800 / SE-800AV Vision Mixer. The SE-800 has four channels, so in the diagram below we have four camera crew, each with an ITC-100SL

The RS-232 output from the SE-800 connects to the RMC-140; this provides the status of the SE-800. The RMC-140 Tally Out connects to the ITC-100 Tally Input A. Tally Input A provides tally information to channels 1 ~ 4. When the camera is live the cameraman will see a red light, when a camera is cued up the cameraman will see an amber light.

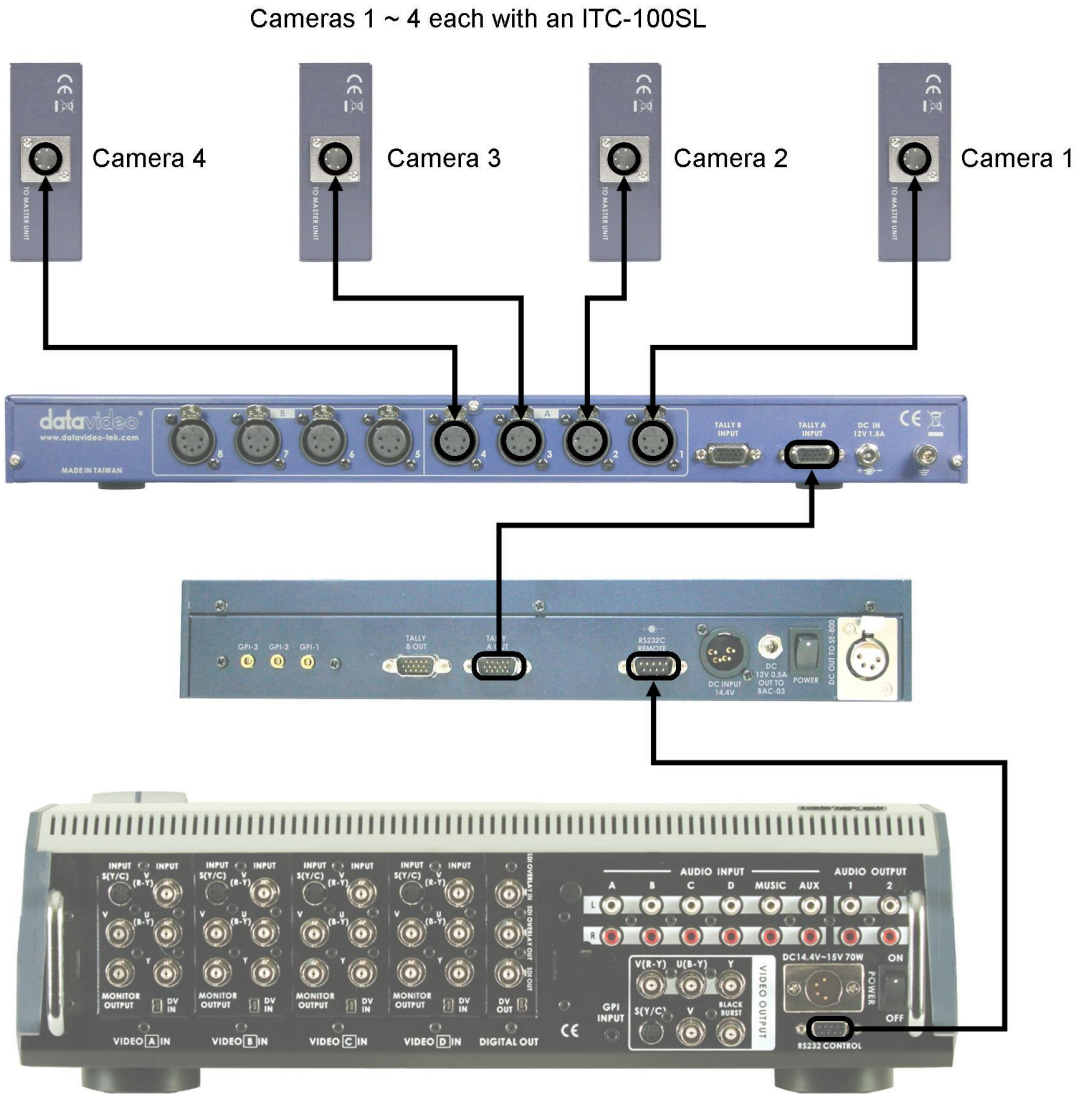
Cameras 1 ~ 4 each with an ITC-100SL



Using the ITC-100 with the SE-800 / RMC-90:

Using the Datavideo SE-800 / SE-800AV Vision Mixer in combination with the RMC-90 remote control makes live production really simple.

The RS-232 output from the SE-800 connects to the RMC-90; this provides the status of the SE-800. The RMC-90 Tally Out connects to the ITC-100 Tally Input A. Tally Input A provides tally information to channels 1 ~ 4. When the camera is live the cameraman will see a red light, when a camera is cued up the cameraman will see an amber light.

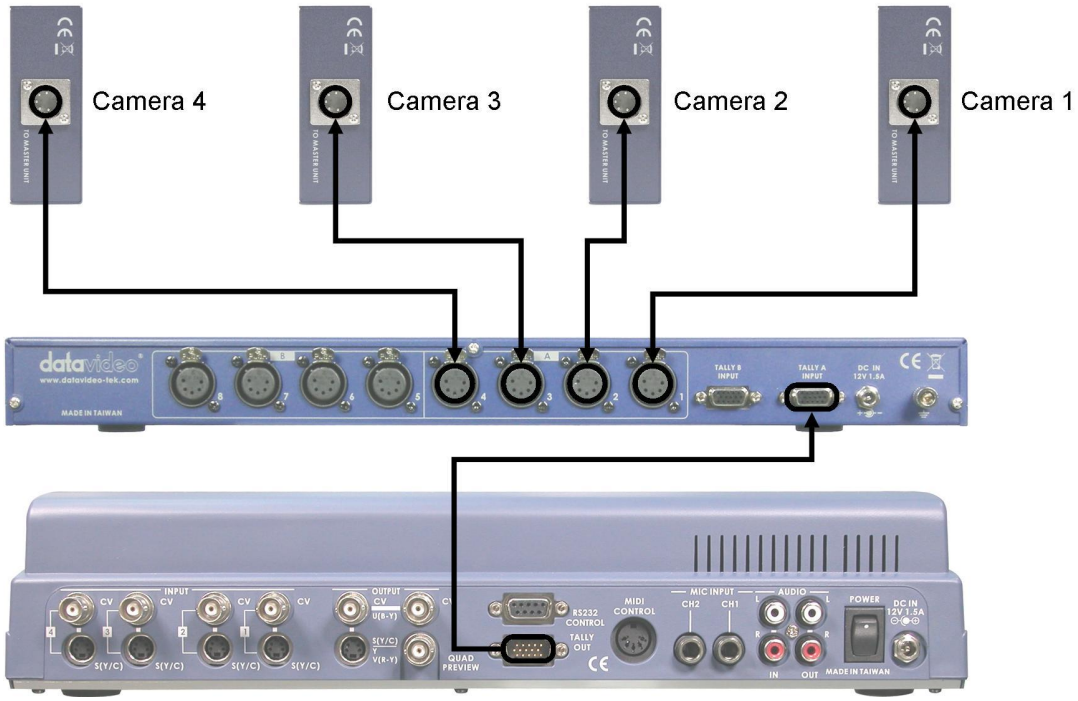


Using the ITC-100 with the SE-500:

The ITC-100 is an ideal accessory for the Datavideo SE-500 Vision Mixer. The SE-500 has four channels, so in the diagram below we have four camera crew, each with an ITC-100SL.

The SE-500 Tally Out connects to the ITC-100 Tally Input A. Tally Input A provides tally information to channels 1 ~ 4. When the camera is live the cameraman will see a red light, when a camera is cued up the cameraman will see an amber light.

Cameras 1 ~ 4 each with an ITC-100SL



ITC-100 Tally Input - Pin Cross Reference

If you are using the ITC-100 with a Datavideo RMC-140, RMC-90 or SE-500 you do not need to worry about tally information, as it is automatically sent to the ITC-100. If you are using the ITC-100 with other equipment the following tables explain the pin configurations of Tally A and Tally B.
Contact closure between the relevant Pin number and ground will illuminate the LED. For example on Tally A, if Pin 1 is connected to Pin 4 the RED LED will light up on Channel 1; if Pin 13 is connected to Pin 4 the AMBER LED will light up on Channel 3

Tally A Input

The Tally A Input will send Tally Information to Channels 1 ~ 4. The following table shows the pin numbers for each channel:

Video Channel	Red LED LIVE (On Air)	Amber LED CUED (Next)
1	Pin 1	Pin 3
2	Pin 6	Pin 8
3	Pin 11	Pin 13
4	Pin 5	Pin 15

Pins 4, 9 and 14 can be used as ground.

Tally B Input

The Tally B Input will send Tally Information to Channels 5 ~ 8. The following table shows the pin numbers for each channel:

Video Channel	Red LED LIVE (On Air)	Amber LED CUED (Next)
5	Pin 1	Pin 3
6	Pin 6	Pin 8
7	Pin 11	Pin 13
8	Pin 5	Pin 15

Pins 4, 9 and 14 can be used as ground.

Specification:

ITC-100 Base Station		Specification
INPUTS / OUTPUTS	**POWER**	12V 1.5A
	TALLY	2 x 15 Pin SubD Sockets for Tally A and Tally B
	MIC / HEADSET	3.5mm Stereo Jack Socket for combination Headphone / Microphone Headset Impedance 8~600 ohms 100mW(min)
	HEADPHONE	¼" (6.3mm) Stereo Headphone Socket Headset Impedance 8~600 ohms 100mW(min)
	LIGHT SOCKET (12V DC)	3 pin XLR connector. Pin2: 12V, Pin3: GND. Light power consumption 12V/100mA(max).
	MICROPHONE	3 Pin XLR / ¼" (6.3mm) Jack Microphone Socket Switchable Condenser / Dynamic Input Microphone Level -67dB
FREQUENCY RESPONSE		550-3.6KHz, < +/-3dB
THD		< 3%
S/N		> 50dB
BUILT-IN SPEAKER		70mm x 30mm 32 Ohm 3 Watts
OPERATING RANGE		Up to 200m between Base Station and Slave
OPERATING TEMP. RANGE		5 ~ 45°C
DIMENSION		750mm x 650mm x 250mm (1U height 19" rack)
WEIGHT		1.9Kg

ITC-100SL SLAVE Unit	Specification
INPUT	5 Pin XLR Connector
MIC / HEADSET SOCKET	3.5mm Stereo Jack Socket for combination Headphone / Microphone Headset Impedance 8~600 ohms 100mW(min) Microphone Level -67dB Or 2.5mm Stereo Jack Socket, for Motorola Mobile Phone type headset / microphone
TALLY OUT SOCKET	3.5mm Jack Socket to connect to TD-1 Tally Indicator
TALLY LED	Bi-Color LED – RED indicates LIVE / AMBER Indicates CUED
POWER LED	Illuminates to indicate that power is being received
OPERATING RANGE	Up to 200m between Base Station and Slave
OPERATING TEMP. RANGE	5 ~ 45°C
DIMENSION	114mm x 97mm x 35mm
WEIGHT	348g

Service and Support

It is our goal to make your products ownership a satisfying experience. Our supporting staff is available to assist you in setting up and operating your system. Please refer to our web site www.datavideo-tek.com for answers to common questions, support requests or contact your local office below.

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